

This diagram illustrates the electrical connection between the GEM1 chip and the baseboard connectors, including voltage filtering and configuration resistors.

### GEM1 chip

The GEM1 chip (U1) is connected to the baseboard connectors (J1 and J2) via the zGlue-GEM1 adapter. The chip pins are labeled with their functions and connections to the baseboard connectors.

### Baseboard connectors

The baseboard connectors (J1 and J2) are connected to the GEM1 chip via the zGlue-GEM1 adapter. The connector pins are labeled with their functions and connections to the GEM1 chip.

### Debug resistors

Debug resistors are used to configure the GEM1 chip. The resistors are labeled with their values and connections to the GEM1 chip pins.

### Configuration resistors

Configuration resistors are used to configure the GEM1 chip. The resistors are labeled with their values and connections to the GEM1 chip pins.

### Voltage filtering

Voltage filtering is implemented using resistors (R1-R10) and capacitors (C1-C15) to filter the power supply voltages (3V3, 1V8, 2V5, 1V2) and ensure stable operation of the GEM1 chip.

**GEM1 chip**

U1  
zGlue-GEM1

CSI\_CLK\_IN\_P  
CSI\_CLK\_IN\_N  
CSI\_D1\_IN\_P  
CSI\_D1\_IN\_N  
CSI\_D2\_IN\_P  
CSI\_D2\_IN\_N  
CSI\_D3\_IN\_P  
CSI\_D3\_IN\_N  
CSI\_D4\_IN\_P  
CSI\_D4\_IN\_N  
CSI\_INT  
CSI\_OE  
MIPI\_SEL  
TDI  
TD0  
TMS  
TCK  
ZIP\_EN\_L  
PWR\_BTN  
PC\_RDY  
GND  
1V8\_SYS  
3V3\_SYS  
VSENSE  
TP5  
VDDANA  
GND  
VBATH  
3V3\_SYS  
1V8  
1V2  
2V5  
3V3  
EXTCLK\_EN  
EXT\_CLK  
3V3\_SYS  
1V2\_SYS\_A  
VPLL\_A  
1V2\_SYS\_B  
VPLL\_B  
2V5\_SYS  
TP9  
TP10  
TP11  
GND

CSI\_CLK\_OUT\_P  
CSI\_CLK\_OUT\_N  
CSI\_D1\_OUT\_P  
CSI\_D1\_OUT\_N  
CSI\_D2\_OUT\_P  
CSI\_D2\_OUT\_N  
CSI\_D3\_OUT\_P  
CSI\_D3\_OUT\_N  
CSI\_D4\_OUT\_P  
CSI\_D4\_OUT\_N  
CSI\_D1\_FP\_P  
CSI\_D1\_FP\_N  
CSI\_D2\_FP\_P  
CSI\_D2\_FP\_N  
CSI\_CLK\_FP\_P  
CSI\_CLK\_FP\_N  
I2C\_0\_SCL  
I2C\_0\_SDA  
I2C\_1\_SCL  
I2C\_1\_SDA  
LED1\_ISINK  
LED2\_ISINK  
LED3\_ISINK  
PROC\_OUT\_0  
PROC\_OUT\_1  
PROC\_OUT\_2  
PROC\_RST  
PROC\_SI  
PROC\_SO  
PROC\_SCK  
PROC\_SS  
CTRL\_RST  
CTRL\_SI  
CTRL\_SO  
CTRL\_SCK  
CTRL\_SS  
DONE  
DBG\_TX  
DBG\_RX  
CTRL\_OUT  
SYS\_CLK  
USB\_DET  
USB\_D\_P  
USB\_D\_N  
ULPM\_WAKE  
VX  
PGND  
GND

**Baseboard connectors**

J1  
543630489  
Mating - 556500488

CSI\_CLK\_IN\_P  
CSI\_CLK\_IN\_N  
CSI\_D1\_IN\_P  
CSI\_D1\_IN\_N  
CSI\_D2\_IN\_P  
CSI\_D2\_IN\_N  
CSI\_D3\_IN\_P  
CSI\_D3\_IN\_N  
CSI\_D4\_IN\_P  
CSI\_D4\_IN\_N  
USB\_D\_P  
USB\_D\_N  
VUSB  
VUSB  
GND

J2  
543630489  
Mating - 556500488

E\_PROC\_RST  
E\_PROC\_SI  
E\_PROC\_SO  
E\_PROC\_SCK  
E\_PROC\_SS  
CTRL\_RST\_FLASH\_SOC\_CS  
E\_CTRL\_SI  
E\_CTRL\_SO  
E\_CTRL\_SCK  
E\_CTRL\_SS  
DONE  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
Reserved  
GND

**Debug resistors**

PROC\_RST  
PROC\_SI  
PROC\_SO  
PROC\_SCK  
PROC\_SS  
CTRL\_RST  
CTRL\_SI  
CTRL\_SO  
CTRL\_SCK  
CTRL\_SS

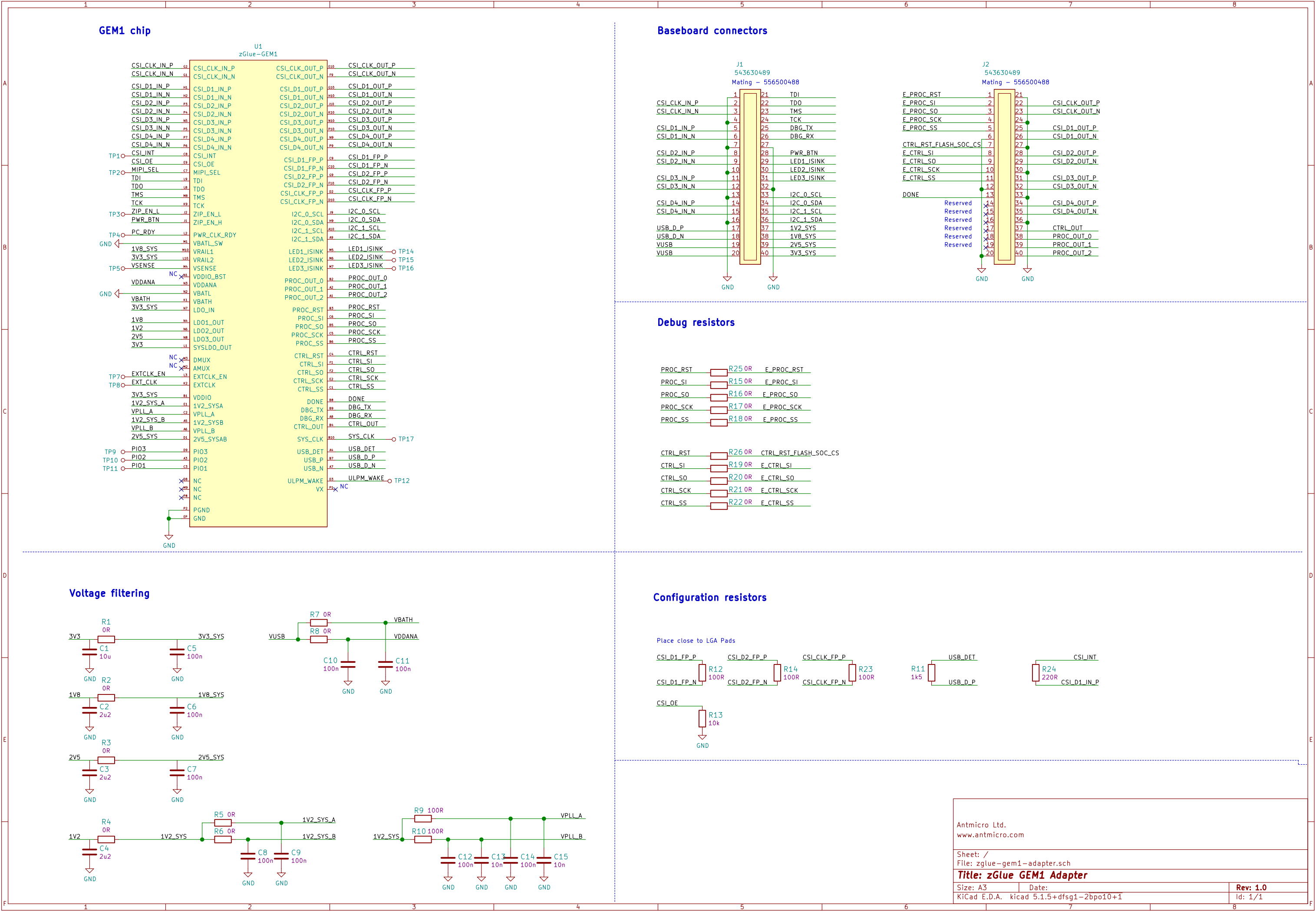
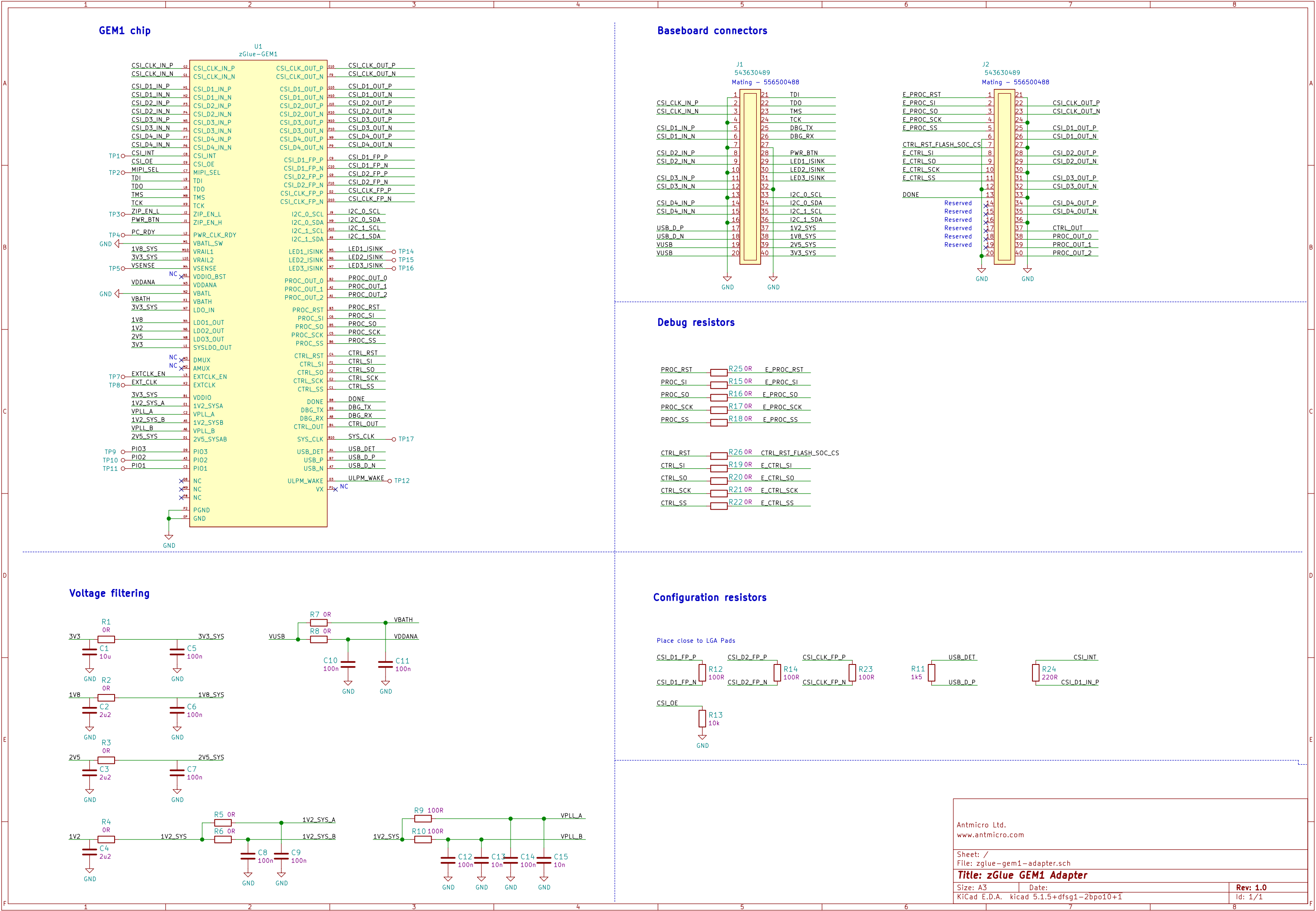
**Configuration resistors**

Place close to LGA Pads

CSI\_D1\_FP\_P  
CSI\_D1\_FP\_N  
CSI\_D2\_FP\_P  
CSI\_D2\_FP\_N  
CSI\_CLK\_FP\_P  
CSI\_CLK\_FP\_N  
USB\_DET  
USB\_D\_P  
CSI\_OE  
GND

**Voltage filtering**

3V3  
1V8  
2V5  
1V2  
GND  
3V3\_SYS  
1V8\_SYS  
2V5\_SYS  
1V2\_SYS  
GND  
VUSB  
VBATH  
VDDANA  
GND  
1V2\_SYS\_A  
1V2\_SYS\_B  
VPLL\_A  
VPLL\_B  
GND



This diagram illustrates the electrical schematic for the zGlue-GEM1 adapter, showing the connection between the GEM1 chip, baseboard connectors, and various passive components.

### GEM1 chip

The GEM1 chip (U1) is connected to the baseboard connectors (J1 and J2) via the zGlue-GEM1 adapter. The chip's pins are labeled with their functions, including CSI, I2C, USB, and various control signals.

### Baseboard connectors

Two baseboard connectors are shown: J1 (543630489) and J2 (543630489). Both connectors are mated to the 556500488 adapter. The pins are labeled with their functions, including CSI, I2C, USB, and various control signals.

### Debug resistors

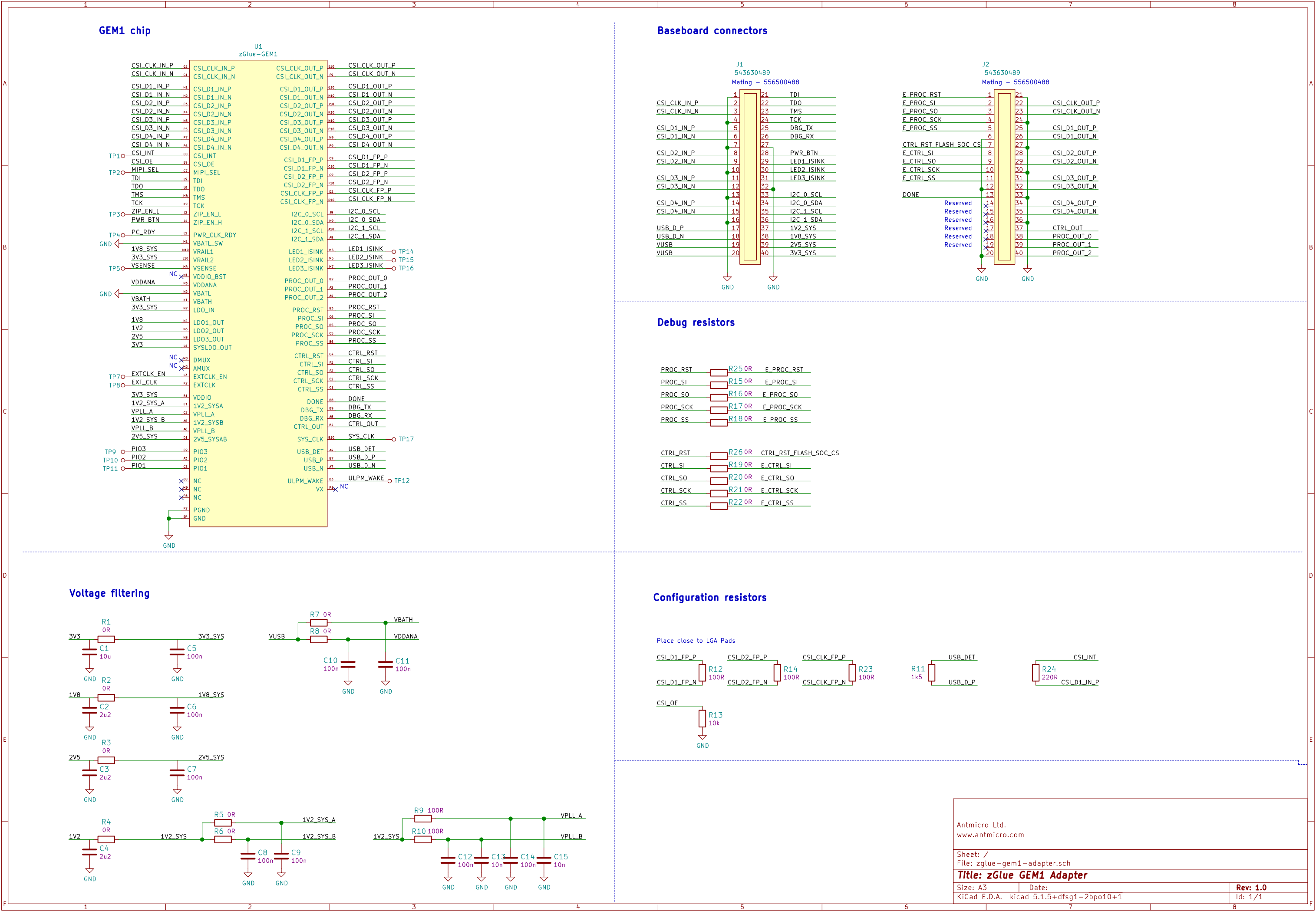
Debug resistors are used to enable or disable various debug features. The resistors are labeled R25 through R22, with values ranging from 0R to 10k.

### Configuration resistors

Configuration resistors are used to configure the adapter's operation. The resistors are labeled R1 through R14, with values ranging from 0R to 10k.

### Voltage filtering

Voltage filtering is implemented using capacitors (C1 through C15) and resistors (R1 through R14) to ensure stable power supply to the GEM1 chip. The filters are connected to the 3V3, 1V8, 2V5, and 1V2 supply lines.



This diagram illustrates the electrical schematic for the zGlue-GEM1 adapter, showing the connection between the GEM1 chip, baseboard connectors, and various passive components.

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### Debug resistors

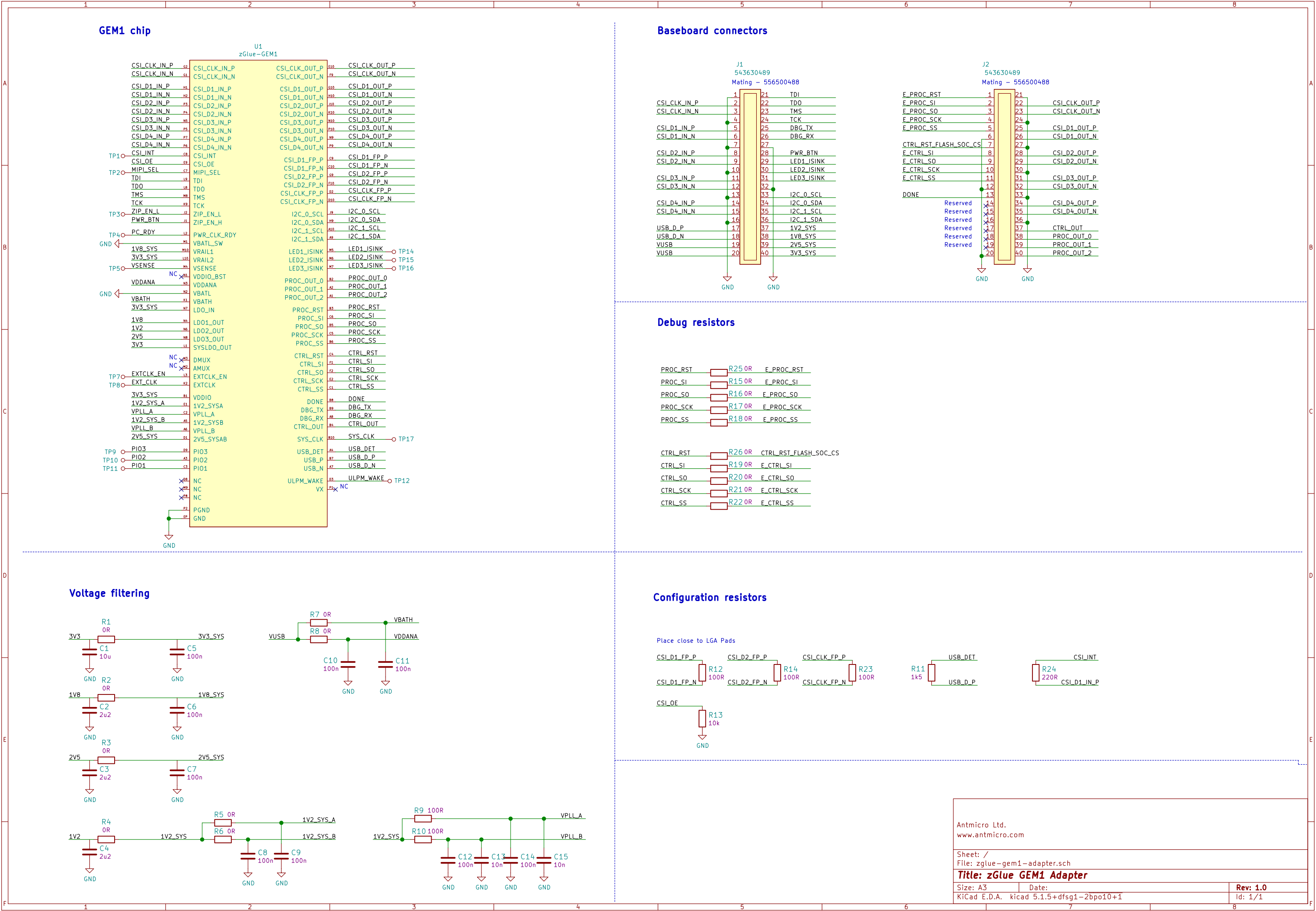
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### GEM1 chip

The GEM1 chip (U1) is connected to the baseboard connectors (J1 and J2) via a zGlue-GEM1 adapter. The chip's pins are labeled with their functions, and the adapter's pins are labeled with their corresponding functions.

### Baseboard connectors

The baseboard connectors (J1 and J2) are connected to the GEM1 chip via a zGlue-GEM1 adapter. The connector pins are labeled with their functions, and the adapter's pins are labeled with their corresponding functions.

### Debug resistors

Debug resistors (R25, R15, R16, R17, R18, R26, R19, R20, R21, R22) are used for debugging the GEM1 chip. They are connected to the chip's pins and the baseboard connectors.

### Configuration resistors

Configuration resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R23, R24) are used to configure the GEM1 chip. They are connected to the chip's pins and the baseboard connectors.

### Voltage filtering

Voltage filtering capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15) are used to filter the supply voltages (3V3, 1V8, 2V5, 1V2, VDDANA, VBATL, VDDIO, VDDANA, VBATL, LDO\_IN, LDO1\_OUT, LDO2\_OUT, LDO3\_OUT, SYSCLK, USB\_DET, USB\_D\_P, USB\_D\_N, ULPM\_WAKE, PGND, GND) to ensure stable operation of the GEM1 chip.

